

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

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JUN - 5 2002

In re:

AMENDMENT OF SECTION 73.622(b)
TABLE OF ALLOTMENTS
DTV BROADCAST STATIONS
MINOT, NORTH DAKOTA

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

MM Docket No.

TO: Chief, Allocations Branch
Policy and Rules Division

PETITION FOR RULEMAKING

Prairie Public Broadcasting ("PPB"), licensee of noncommercial educational station KSRE(TV), NTSC Channel *6, DTV Channel *57, Minot, North Dakota, by its attorneys and pursuant to the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622(b) of its Rules to substitute DTV Channel *40 in lieu of DTV Channel *57 as KSRE's paired digital channel in Minot, North Dakota. This substitution of paired digital channels would serve the public interest and would replace PPB's out-of-core DTV allotment with an in-core channel. In addition, as the attached technical documentation demonstrates, KSRE's proposed operation on Channel *40 will not cause impermissible interference to any other stations.

PPB proposes the following amendment to Section 73.622(b) of the Commission's Rules:

<u>Community</u>	<u>Present</u>	<u>Proposed</u>
Minot, North Dakota	*57	*40

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In support of this petition, PPB submits the following:

A. A Petition for Rulemaking is the Only Available Avenue of Relief for PPB

PPB provides the only noncommercial educational television service in the Minot, North Dakota community and serves approximately 98,000 persons in KSRE's Grade B contour. PPB has operated public television station KSRE on NTSC Channel *6 at Minot since 1980, providing high quality educational, informational and cultural programming, including children's programming, to the Minot area. In the *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, in the Advanced Television Proceeding, MM Docket No. 87-268, FCC 98-315 (released December 18, 1998), the Commission allocated Channel *57 for KSRE. PPB proposes to substitute DTV Channel *40 instead of DTV Channel *57 at Minot, North Dakota. As demonstrated in the attached Engineering Statement prepared by PPB's consulting engineer, DTV Channel *40 will work at the proposed transmitter site, assuming a power/height combination of no more than 1,000 kw/874.2 m AMSL.

B. The Proposed Change to the Table of Allotments Will Serve the Public Interest

The proposed change to the DTV Table of Allotments will serve the public interest by enhancing PPB's ability to provide high quality noncommercial educational programming. In particular, the proposed substitution will allow PPB to preserve its limited resources. By necessity, as a noncommercial educational licensee operating a statewide radio and television network with a limited budget of \$8,274,834 (FY 2001, including expenses for PPB's radio and television networks, and the receipt of federal grants funding), PPB must be a careful steward of its resources, even while it seeks to offer the highest quality of public broadcasting service.

PPB has looked forward to the early, innovative activation of DTV facilities. In fact, despite being a smaller noncommercial operation, PPB's Station KBME-DT, in Bismarck, North Dakota, began digital television operations in January, 2001. The allocation of out-of-core Channel *57 as the paired DTV channel for KSRE, however, has created some obstacles to the achievement of PPB's goals. In particular, financial constraints and in-core considerations have forced PPB to seek an alternate available channel.

The proposed allotment of DTV Channel *40 would allow PPB to activate KSRE-DT on an "in-core" channel. Given the current allocation of "out-of-core" DTV Channel *57 for KSRE-DT, PPB would be required to construct and operate KSRE-DT on that channel, only to be displaced on the frequency by other users. *See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, FCC 01-364, GN Docket No. 01-74 (released January 18, 2002). Moreover, given that KSRE now operates on analog Channel 6 and that the DTV propagation characteristics for Channel 6 are still being tested and confirmed, PPB may not have the easy option of electing to convert its analog channel to DTV use at the end of the DTV transition.¹ It would be an undue financial hardship on PPB to construct and operate KSRE-DT out-of-core only to be required to eventually rebuild the station facility on an in-core channel, especially when an in-core channel is ready and available for PPB's use. PPB estimates an additional cost of \$425,000 to make an in-core channel change at a later date, which would mean a total cost outlay of \$1,625,000 for the DTV conversion of KSRE in Minot (which serves 93,988 persons), as compared with \$1,200,000 to build out a DTV facility on Channel 40 now.

¹ *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, Memorandum Opinion and Order*, 11 CR 634, 13 FCC Rcd 7418, 63 FR 13546 (Feb. 23, 1998) at paragraph 34.

Moreover, PPB would realize significant additional financial savings from the substitution of DTV Channel *40 for Channel *57. If authorized to construct the KSRE DTV facility in Channel 40, PPB plans to follow through with an arrangement to di-plex the KSRE DTV transmitter with a commercial DTV station's transmitter into a single line/antenna system at PPB's existing tower site. By virtue of this arrangement, PPB expects to receive financial assistance from the commercial broadcaster to remodel the station's transmitter building. In addition, PPB would receive a yearly tower rent which would help finance PPB's construction and operation of the KSRE DTV transmitter. Furthermore, the proposed DTV channel substitution would result in an improved transmitter efficiency on Channel 40, which would require less electrical power and additional cost savings for PPB.

These financial considerations and the value of an in-core allotment would be of critical importance to PPB in constructing and operating KSRE-DT within its available budget. The cost savings resulting from the reallocation of KSRE's paired DTV channel from *57 to *40 are especially significant when considering the duration of the DTV transition that will last at least until 2006 (during which time dual analog and digital operation will be maintained), and further considering that PPB has seven additional DTV stations in its state network (as well as its seven analog stations) to operate and maintain throughout the DTV transition.

C. The Proposed Change to the Table of Allotments Will Not Result in Impermissible Interference with Surrounding Stations

Under Section § 73.622(f)(5) of the Commission Rules, an existing licensee with DTV allotment may seek a change in the station's channel if the licensee demonstrates that the change "complies with the technical criteria in §73.623(c), and thereby will not result in new interference exceeding the *de minimis* standard set forth in that section . . ." In accordance with these rules, PPB requests that the Commission substitute DTV Channel *40, at a power/height

combination of no more than 1,000 kw/874.2 m AMSL, for DTV Channel *57. As the engineering statement accompanying this petition demonstrates, the proposed operation of KSRE-DT on Channel *40 with ERP of 1,000 kw and a center of radiation AMSL of 874.2 m would in fact result in no impermissible interference to any other station.

D. Conclusion

For all of these reasons, PPB requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to substitute DTV Channel *40 for DTV Channel *57 as the paired channel for KSRE in Minot, North Dakota. If the Commission grants this petition and modifies the DTV Table of Allotments accordingly, PPB is committed to applying for and constructing its DTV station for KSRE on Channel *40.

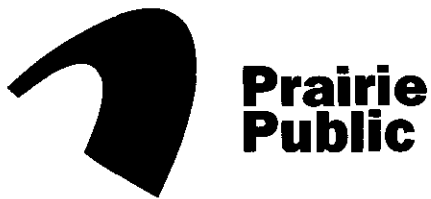
Respectfully Submitted,

PRAIRIE PUBLIC BROADCASTING

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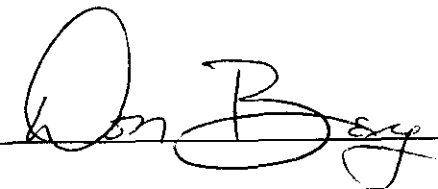
June 5, 2002



Prairie Public Broadcasting, Inc.

*Prairie Public Television
North Dakota Public Radio
Educational Services
Enterprises*

I, Don Berg, Vice President of Prairie Public Broadcasting, hereby declare that the foregoing facts set forth in this Petition for Rulemaking to amend Section 73.622 of the Commission's Rules are true and correct to the best of my knowledge and belief. Prairie Public Broadcasting intends to apply for and prosecute an application to construct Station KSRE-DT on Channel *40, if allotted to Minot, North Dakota.

By: 

Title: Vice President

Date: 6/4/02

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**Station KSRE-DT
as DTV Channel 40
Minot, North Dakota**

**Engineering Exhibit
in Support of Petition for Rulemaking
to Substitute
Noncommercial DTV Channel 40 for
Noncommercial DTV Channel 57
at Minot, North Dakota**

May 16, 2002

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Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained Prairie Public Broadcasting, Inc., licensee of TV Station KSRE, NTSC Channel 6, Minot, North Dakota, and permittee of the Station KSRE-DT, DTV Channel 57, Minot, North Dakota, to prepare this engineering exhibit in support of a petition for rulemaking to change the KSRE-DT frequency from DTV Channel 57 to DTV Channel 40.

Proposed Facilities

It is proposed that the DTV Table of Allotments be amended to substitute noncommercial DTV Channel 40 for Minot, North Dakota, at 48° 03' 02" N, 101° 23' 25" W, NAD27. An effective radiated power ("ERP") of 1,000 kW omnidirectional with a center-of-radiation height of 228.6 meters AGL, 874.2 meters AMSL, and 252.9 meters HAAT, is proposed.

U.S. Domestic Allocation Conditions

There are no full-service NTSC TV stations, Class A TV stations, or DTV stations sufficiently close to the proposed site even to be included in an OET-69 interference study; accordingly, moving KSRE-DT from out-of-core DTV Channel 57 to in-core DTV Channel 40 would cause zero percent new interference to other full-service NTSC TV stations, Class A TV stations, and DTV stations.

Canadian Allocation Conditions

The proposed site is 105.4 kilometers from the Canadian border. Since this is within 400 kilometers of the U.S.-Canada border, the site is subject to the September 22, 2000, *Letter of Understanding Between the Federal Communications Commission of the United States of America and Industry Canada Related to the Use of the 54-72 MHz, 76-88 MHz, 174-216 MHz and 470-806 MHz Bands for the Digital Television Broadcasting Service Along the Common Border* ("LOU"). The proposed power and height make the allotment equivalent to a LOU "Class VL" station. As shown by the attached Figure 1, allotment of DTV Channel 40 to Minot would meet all LOU First Step transmitter-to-transmitter spacing requirements to all pertinent Canadian DTV allotments. As shown by the attached Figures 2A, 2B and 2C, allotment of DTV Channel 40 to Minot would also meet all LOU First Step transmitter-to-transmitter spacing requirements to all pertinent Canadian NTSC allotments. Therefore, Industry Canada should readily approve this proposed allocation.



Coverage of Minot

As shown by the attached Figure 3, the proposed facilities would completely encompass Minot within the dipole-adjusted F(50,90) 48.2 dBu DTV City Grade contour. As shown by the attached Figure 4, an OET-69 coverage study for KSRE-DT as DTV Channel 40, the proposed allotment would have a terrain-limited, interference-limited land area of 25,139 square kilometers and 85,136 persons (intentionally still 1990 Census), and these figures are accordingly proposed for the allotment's "baseline" values. It should be noted that because there are no other full-service NTSC stations, Class A TV stations, or DTV stations sufficiently close to the proposed site and with channel relationships that could pose an interference threat to KSRE-DT as DTV Channel 40, there are no interfering stations listed.

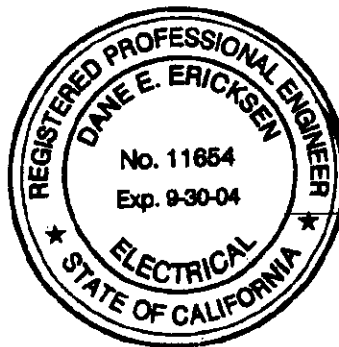
Summary

In-core DTV Channel 40 can be substituted for out-of-core DTV Channel 57 for Minot, North Dakota. No interference to any U.S. full-service NTSC station, Class A TV station, or DTV station or allotment would be caused. Use of DTV Channel 40 would be fully spaced to all Canadian NTSC and DTV stations and allotments. The proposed allotment would fully encompass Minot within its DTV City Grade contour.

List of Figures

In carrying out these engineering studies, the following attached figures were prepared under my direct supervision:

1. Map showing Canadian DTV allocation conditions
2. Maps showing Canadian NTSC allocation conditions
3. Map showing proposed DTV City Grade and DTV Threshold contours
4. OET-69 coverage map and study for the proposed DTV Channel 40, Minot, North Dakota, allotment.




Dane E. Ericksen, P.E.

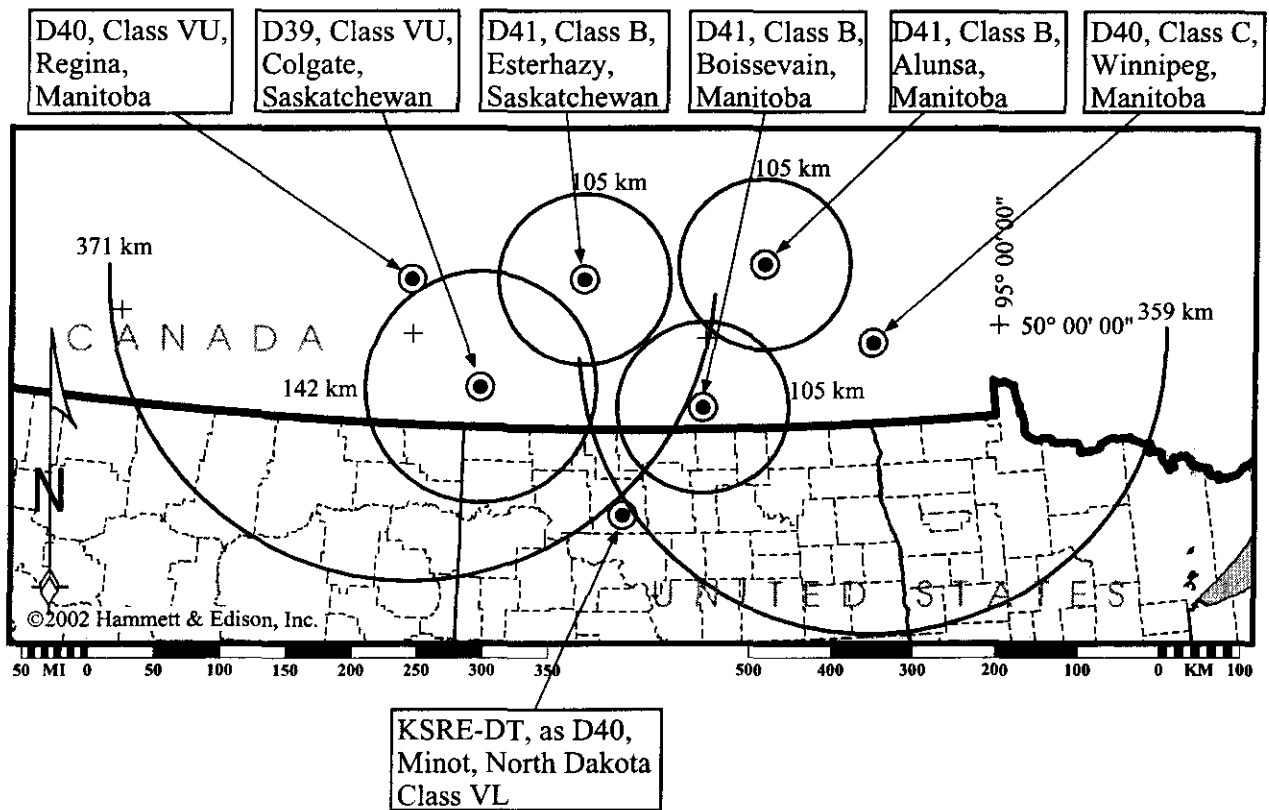
May 16, 2002



HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

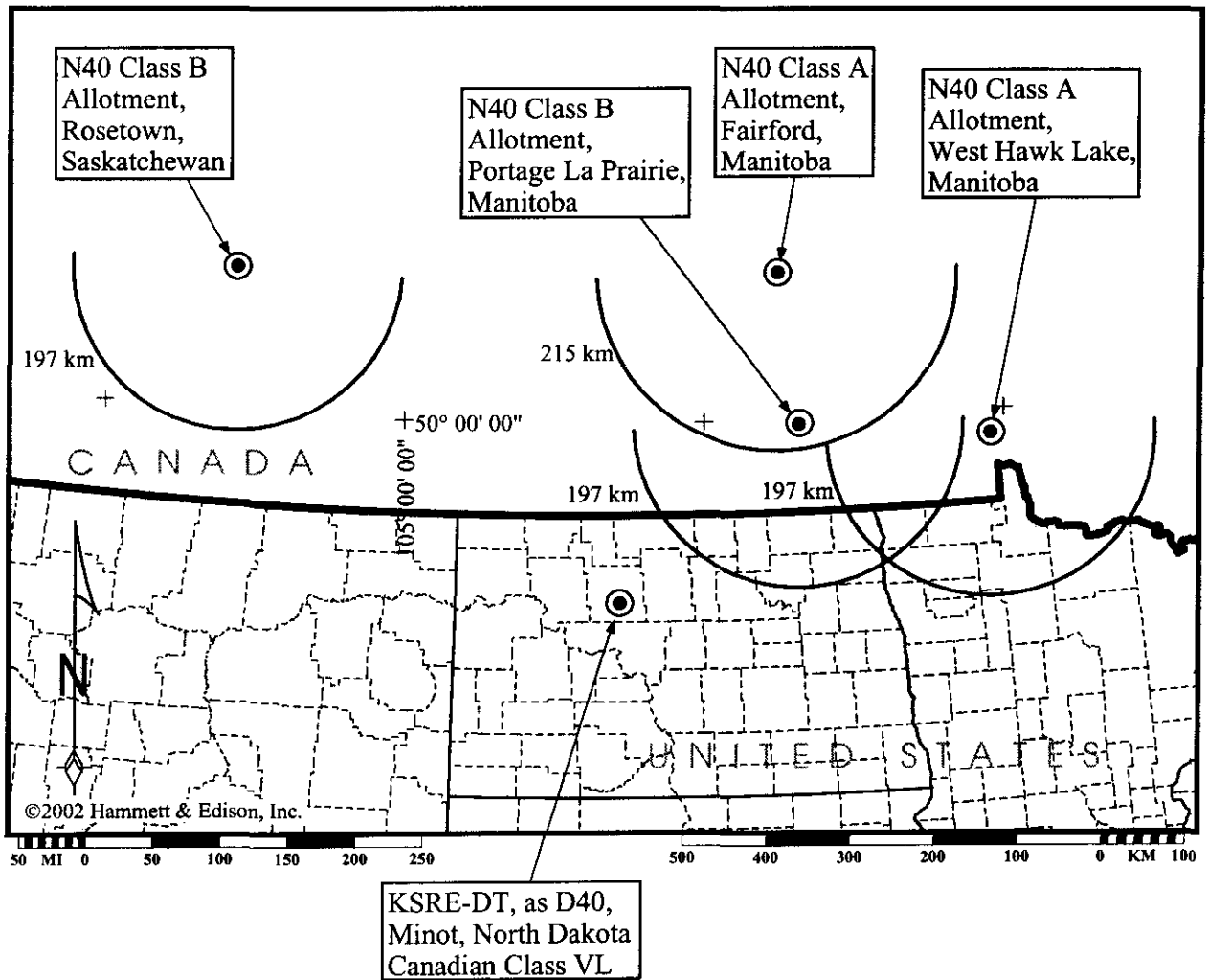
Canadian DTV
Allocation Conditions



Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey.
Geographic coordinate marks shown at 5-degree increments.

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

Co-Channel Canadian NTSC
Allocation Conditions



Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey.
Geographic coordinate marks shown at 5-degree increments.

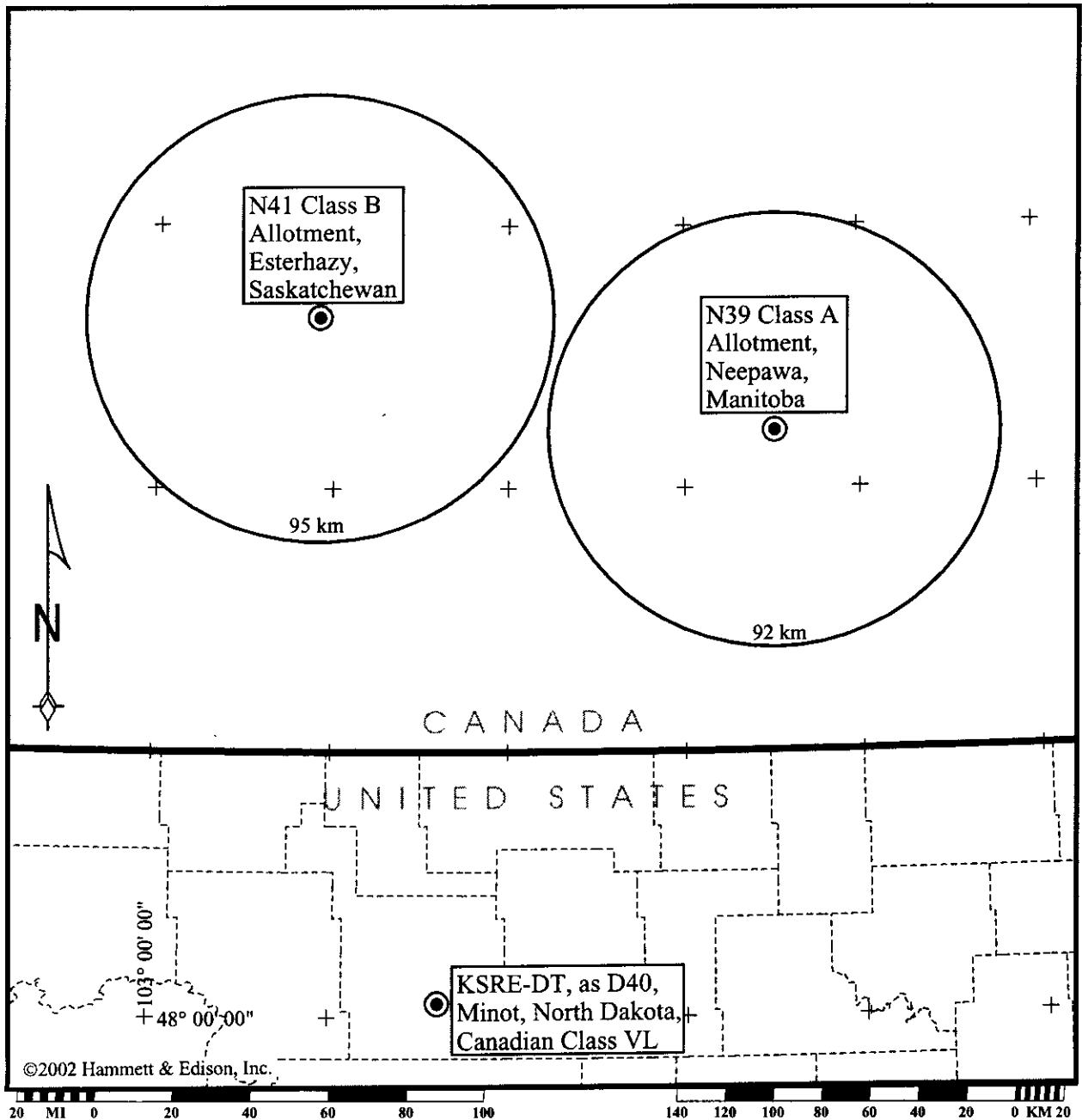


HAMMETT & EDISON, INC.
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Figure 2A

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

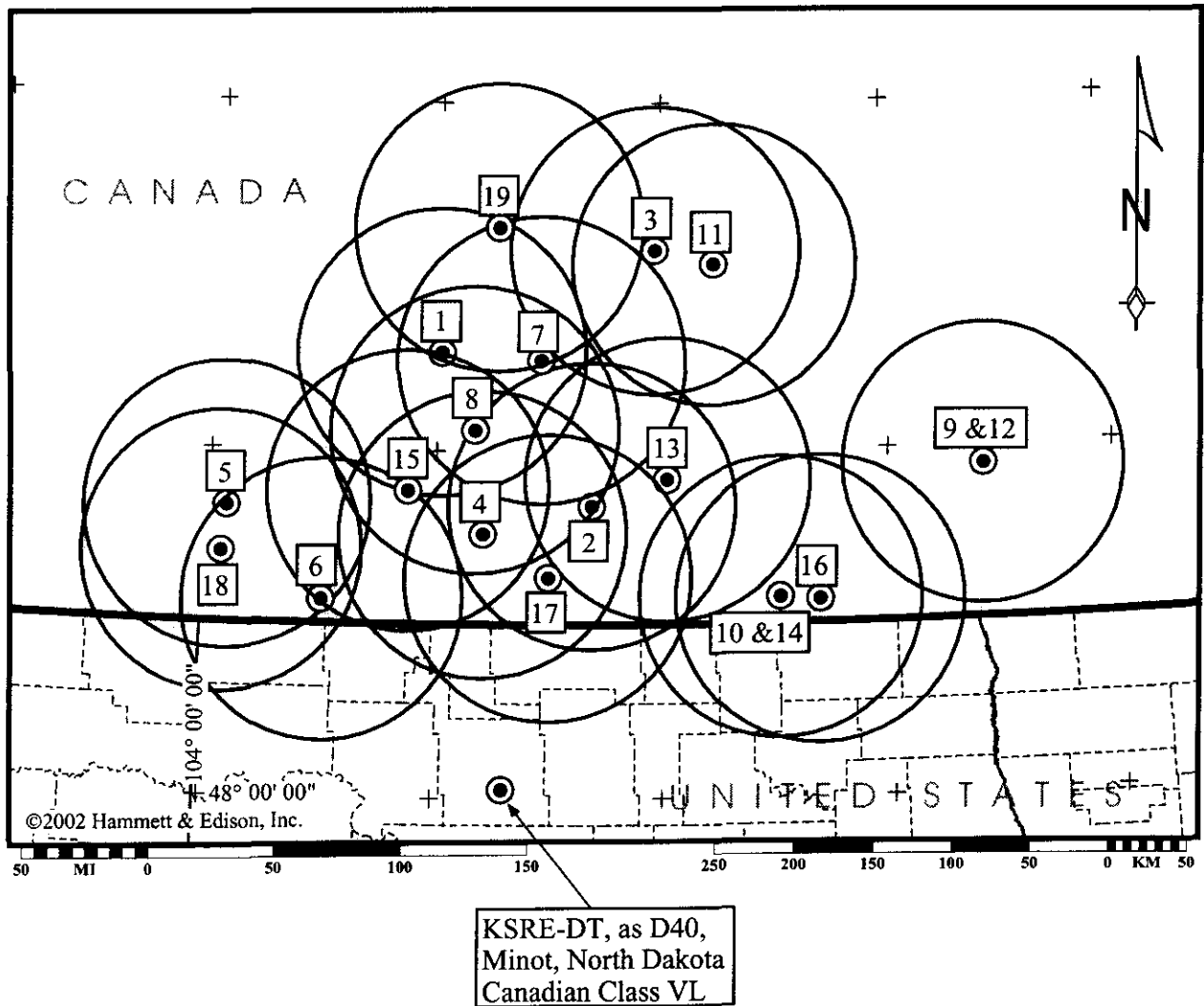
First-Adjacent Channel Canadian NTSC
Allocation Conditions



Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey.
Geographic coordinate marks shown at 1-degree increments.

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

Taboo Channel Canadian NTSC
Allocation Conditions



Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey.
Geographic coordinate marks shown at 2-degree increments.

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

**Taboo Channels Canadian NTSC
Allocation Conditions**

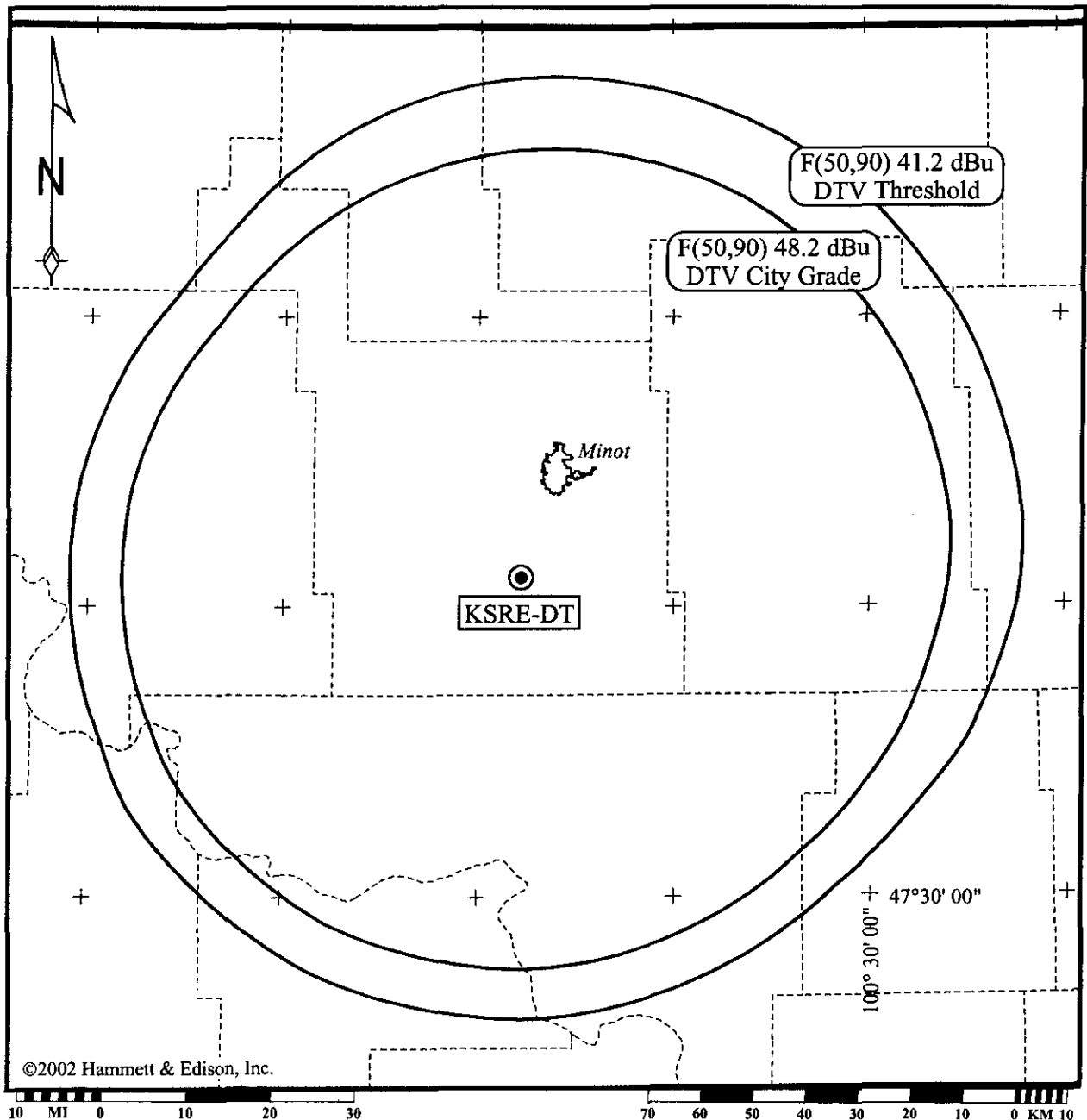
<u>Station Number</u>	<u>NTSC Channel</u>	<u>Call</u>	<u>Class</u>	<u>Location</u>	<u>Required Spacing</u>	<u>Actual Spacing</u>
1	25	Allot.	B	Esterhazy, Saskatchewan	92 km	282.5 km
2	26	Allot.	B	Bellegarde, Saskatchewan	92	163.5
3	26	Allot.	B	Dauphin, Manitoba	92	358.1
4	32	CBWF12	B	Oak Lake, Manitoba	92	189.8
5	32	Allot.	B	Weyburn, Saskatchewan	92	254.7
6	33	Allot.	A	Estevan, Saskatchewan	90	168.3
7	33	Allot.	B	Foxwarren, Manitoba	92	275.7
8	36	Allot.	B	Moosomin, Saskatchewan	92	230.7
9	36	Allot.	A	Winnipeg, Manitoba	90	371.4
10	38	App.	A	Crystal City, Manitoba	90	216.8
11	38	Allot.	A	Ste Rose Du Lac, Manitoba	90	361.8
12	42	Allot.	A	Winnipeg, Manitoba	90	371.4
13	43	Allot.	B	Brandon, Manitoba	91	224.6
14	44	Allot.	A	Crystal City, Manitoba*	90	216.8
15	47	Allot.	A	Carlyle Lake, Saskatchewan	90	201.0
16	47	Allot.	B	Pembina Valley, Manitoba	92	237.4
17	48	Allot.	B	Melita, Manitoba	92	138.3
18	48	Allot.	A	Colgate, Saskatchewan	90	237.0
19	48	Allot.	B	Roblin, Manitoba	92	359.6

* Appears in FCC engineering database, but does not appear on the Appendix 1B LOU list of Canadian NTSC and DTV stations and allotments within 400 kilometers of the U.S.-Canada border. Assumed to be Canadian Class A.

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

FCC Contours for KSRE-DT as DTV Channel 40
1,000 kW ERP Omnidirectional

C.O.R. = 228.6 m AGL, 874.2 m AMSL, 252.9 m HAAT

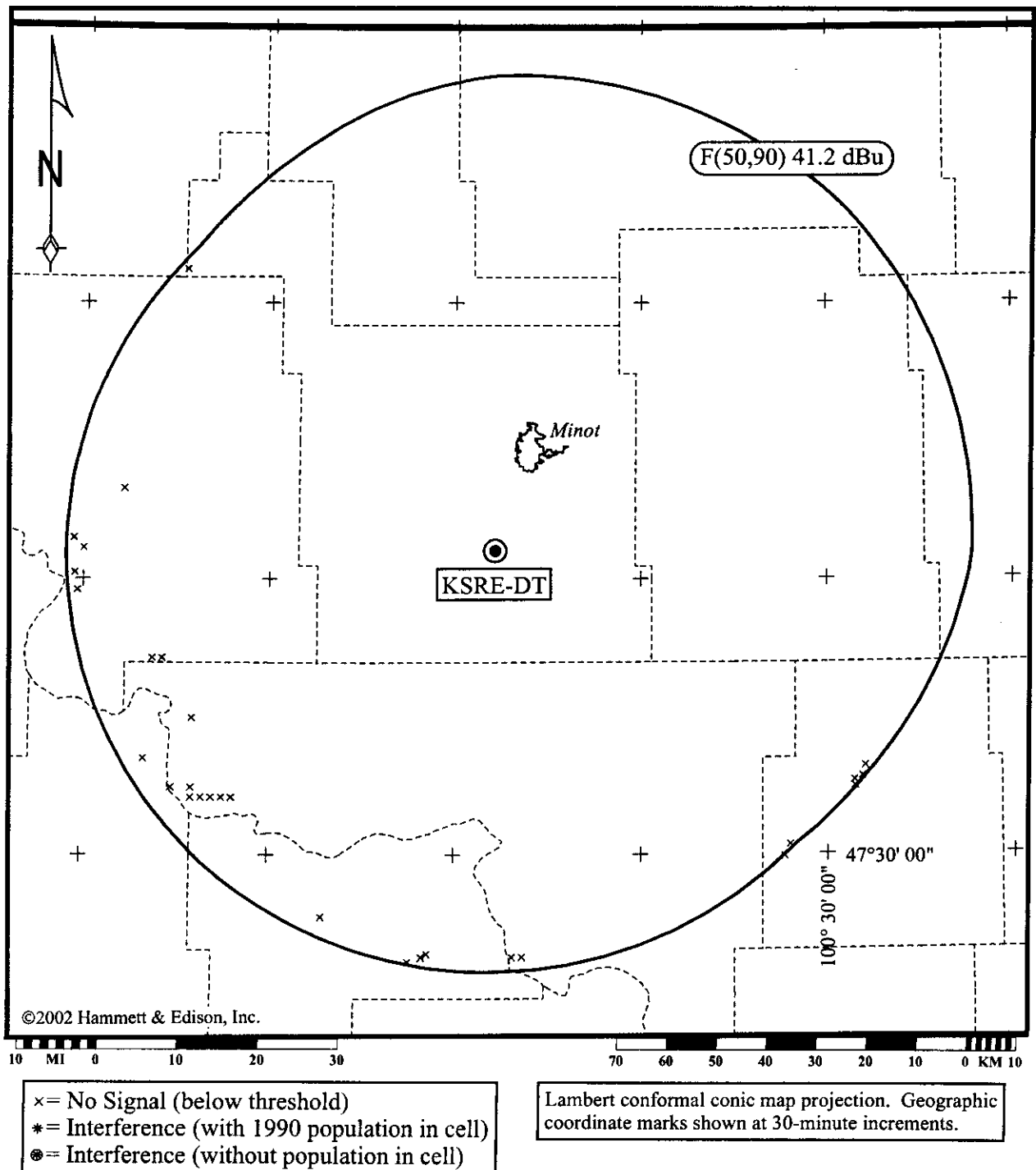


Contour	Area	Population (2000 Census)	
F(50,90)	48.2 dBu	19,317 sq km	74,889 persons
F(50,90)	41.2 dBu	25,321	83,160

Lambert conformal conic map projection.
Geographic coordinate marks shown at
30-minute increments.

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

OET-69 Coverage Map
1,000 kW ERP Omnidirectional at 252.9 meters HAAT



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Figure 4A

Station KSRE-DT • as DTV Channel 40 • Minot, North Dakota

OET-69 Coverage Study

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Coverage analysis tvcovstudy 2.3.13 Station parameters:
--Modified----- --Original----- Station: D40
KSRE CP D57 KSRE CP City: MINOT, ND
MINOT, ND Coordinates: N 48-03-02.0 N 48-
03-02.0 W 101-23-25.0 W 101-23-25.0
Height AMSL: 874.2 m 874.2 m Maximum ERP: 1000 kW
88.0 kW Azimuth pattern: omnidirectional DIE-32613_TFU-18DS
Orientation: 0.0 Elevation pattern: OET-69
generic OET-69 generic Service level: 41.2 dBu
42.5 dBu Total IX
Unique IX -----
----- Interfering station Area,km2 Population
Area,km2 Population -----
----- Service conditions Area,km2 Population -----
----- Noise-limited service 25255.4
85,235 Terrain-limited service 25139.0 85,136 Interference-free
service 25139.0 85,136 Longley-Rice errors 923.2 3,691
```

Note: The results of the OET-69 algorithm are dependent on the use of computer databases, including terrain, population, and FCC engineering records. FCC Rules Section 0.434(e) specifically disclaims the accuracy of its databases, recommending the use of primary data sources (i.e., paper documents), which is not practical for DTV interference analyses. Further, while Hammett & Edison, Inc. endeavors to follow official releases and established precedents on the matter, FCC policy on DTV analysis methods is constantly changing. Thus, the results of OET-69 interference and coverage studies are subject to change and may differ from FCC results.